

Submersible Mixer Type ABS XRW 650

SULZER

50 Hz

Compact, submersible, stainless steel mixer, designed to achieve an optimum flow pattern in a wide range of mixing and stirring applications, in large tanks and open waters.

Construction

The submersible mixer is designed as a compact, water-pressure-tight unit, including propeller and integrally casted installation bracket for attachment to a square guide tube.

Maximum allowable temperature of the medium for continuous operation is 40 °C.

Motor:

Premium Efficiency, IE3 equivalent, sensorless permanent-magnet motor with high overload capacity; 50 Hz; 24-pole; 400 V* using variable frequency drive (VFD) control. Protection type IP 68, with stator insulation Class F.

Start-up:

Variable frequency drive (VFD) Max. submergence 20 m.

Propeller:

Technically optimized, axially operating 3-blade propeller, designed to achieve high thrust and therefore a high flow capacity in an axial direction. The propeller is self-cleaning and so ensures vibration-free operation.

Solids deflection ring:

Enhanced solids deflection ring design. The patented solids deflection ring protects the mechanical seal from damage by ingress of solid or fibrous matter.

Bearings:

All bearings are lubricated-for-life and maintenance-free, with a calculated lifetime of more than 100,000 h.

Shaft sealing:

Sic-Sic, covered mechanical seal at medium side. NBR O-rings and lip seals.

Seal monitoring:

DI-system with sensors in the oil**, motor and cable connection chambers.

Temperature monitoring:

Overtemperature protection using a PTC thermistor in the stator at 140 °C.

Cable:

10 m sewage-resistant EMV-FC S1BC4N8-F ..G.. 0,6/1 kV.

Optional lengths (m):

15, 20, 30, 40, 50.

Options:

Explosion-proof version, additional seal (Sic-C) at motor side, flow ring, seals in viton, vertical angle adjustment, vortex shield, vibration damper, lifting hoop.

Weight:

150 kg. With flow ring 165 kg.

* other voltages available, ** not in Ex version.



System data

Motor	PM 55/24	PM 75/24	PM 100/24
Rated power (kW)	5.5	7.5	10.0
Motor efficiency (%)	94.0	93.3	91.7
Variable Frequency Drive (VFD)	A	B	C
Rated power (kW)	5.5	7.5	11.0
Rated current (A) at 400 V	12.9	15.8	24.2

Total system efficiency (%)	91.5	90.9	89.3
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Mixer performance

Hydraulic No.	Mixer power P_p in kW	Motor kW
6531A / 6551A*	2.0	5.5
6532A / 6552A*	2.5	5.5
6533A / 6553A*	3.0	5.5
6534A / 6554A*	3.5	5.5
6535A / 6555A*	4.0	5.5
6536A / 6556A*	4.5	5.5
6530B / 6550B*	5.0	7.5
6531B / 6551B*	5.5	7.5
6532B / 6552B*	6.0	7.5
6533B / 6553B*	6.5	7.5
6530C / 6550C*	7.0	10.0
6531C / 6551C*	7.5	10.0
6532C / 6552C*	8.0	10.0

*with flow ring

Materials

Part	
Motor housing	1.4404 (AISI 316 L)
Sliding bracket	1.4470 (AISI 329) / polyamide (CF-8M)
Motor shaft	1.4401 (AISI 316)
Propeller	1.4571 (AISI 316 Ti)
Fasteners	1.4401 (AISI 316)
Lifting band	1.4571 (AISI 316 Ti)